STAT 541: Test 1

Table 1 (Data set Advanced) and Table 2 (Data set Base) contain on-line text book prices; the column headers are the actual variable names. Table 1 contains prices for SAS Certification Prep Guide: Advanced Program for SAS 9 Third Edition, while Table 2 contains prices for SAS Certification Prep Guide: Base Program for SAS 9 Third Edition.

1. Write code for a report entitled "Advanced SAS Certification Prep Guide Prices" that prints the Advanced data set with an improved format for book price. Include code so that the title will not be repeated for subsequent reports.

2. Write code to generate the same report, but list the books by ascending price. Graduate students should provide code to list books by ascending price, with Used books listed first and New books listed next.

3. List PROC SQL statements to generate a report that lists all the columns in Advanced, and adds a column with constant value "Advanced"–name that column Text. Repeat the commands for the data set Base, but the constant value should be "Base"–that column will also be named Text.

4. Use your SELECT statements to generate a report that stacks Advanced and Base (along with the constant column Text) as a single vertical data set with columns Condition, Price, Vendor, and Text.

5. What output would the following commands generate?

```
proc sql;
select * from advanced where vendor like "%Book_";
quit;
```

6. Write code to create a table that includes only the records from Base that contain vendors with the word "book" in their name, regardless of case. Graduate students should provide two different methods for doing so.

7. What output would the following code for an inner view generate?

```
proc sql;
select * from
(select a.vendor, a.condition,
a.price as aprice label="Advanced Text Price",
b.price as bprice label="Base Text Price"
from advanced as a inner join base as b
on (a.vendor=b.vendor and a.condition=b.condition))
where condition="New";
quit;
```

8. Write code that generates a report listing condition and average price for each level of Condition for the Base data set. Be sure the average price column has an appropriate label and format.

9. What output would the following code produce? What would happen if you included the keyword ALL after INTERSECT?

```
proc sql;
select vendor from advanced
intersect
select vendor from base;
quit;
```

10. Add the following record for a new vendor on Amazon to the Base data set (assume it is in your WORK directory) using the method of your choice.

```
Used 90.00 Valya
```

11. Undergraduates should write code to update the price of texts in Advanced to account for a $4 shipping charge. Graduate students should write similar code to account for a $3 shipping cost for used books and a $4 shipping cost for new books.

Data sets

Condition	Price	Vendor
New	113.00	Quality Book Bargains
New	233.10	Brooke Books
New	233.27	Murray Media
New	649.53	International Online Bookstore
Used	186.35	Brooke Books
Used	187.02	Murray Media
Used	84.75	Bookbyte 123
Used	92.99	Minicity Media

Table 1: Data Set Advanced. Condition, Price and Vendor for copies of Advanced SAS Certification Prep Guide available on the Internet

Condition	Price	Vendor
New	110.00	Quality Book Bargains
New	179.42	Brooke Books
New	179.25	Murray Media
New	723.25	International Online Bookstore
Used	179.42	Brooke Books
Used	179.25	Murray Media
Used	82.15	Bookbyte 123
Used	86.25	Bookbyte 123
Used	102.65	Bookbyte 123

Table 2: Data Set Base. Condition, Price and Vendor for copies of Base SAS Certification Prep Guide available on the Internet